

## IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A tilt control device for controlling a radial tilt of a recording surface of an optical disc ~~(1)~~ with respect to an optical recording/reproducing beam, said tilt control device comprising:

5 a) ~~\_\_\_\_\_~~ control means ~~(10)~~ for generating two focus controlling outputs; and

b) ~~\_\_\_\_\_~~ actuating means ~~(11)~~ for controlling a focusing state and the radial tilt of the optical recording/reproducing beam based on said two focus controlling outputs ~~and the radial tilt~~,

10 characterized in that

e) ~~\_\_\_\_\_~~ said control means ~~(10)~~ ~~is arranged to determine the~~ determines a radial tilt value based on a differentiation of focus control values obtained at different radii of said optical disk ~~(1)~~.

2. (Currently Amended) ~~A~~ The device according to ~~as claimed in~~ claim 1, characterized in that said actuating means ~~(11)~~ comprises a split focus coil arrangement ~~arranged to provide~~ for providing focus and tilt adjustment, ~~—, and~~ said control means ~~(10)~~ ~~is~~

5 ~~arranged to supply~~ supplies said two focus controlling outputs to respective coils ~~(C1, C2)~~ of said split focus coil arrangement.

3. (Currently Amended) A ~~The device according to~~ as claimed in claim 1, characterized in that said focus controlling ~~output is~~ outputs are Proportional Integral Derivative (PID) controller ~~output~~ outputs.

4. (Currently Amended) A ~~The device according to~~ as claimed in claim 1, characterized in that said control means ~~(10) is arranged to position~~ positions a sledge ~~(4)~~ at at least two different radial positions ~~(R1 to R3)~~, ~~to control~~ controls said actuating means ~~(11)~~ to adjust the focus, and ~~to measure~~ measures said focus ~~controlling~~ ~~output~~ control values at said at least two different radial positions.

5. (Currently Amended) A ~~The device according to~~ as claimed in claim 1, characterized in that said control means ~~(10) is arranged to set~~ calculates a mean disc tilt value in a tilt register ~~(R8)~~.

6. (Currently Amended) A ~~The device according to~~ as claimed in claim 1, characterized in that said control means ~~(10) is arranged to generate~~ generates said tilt ~~control output~~ focus controlling outputs based on measured mean

5 focus ~~controller outputs~~ control values and corresponding radial steps between two measurements.

7. (Currently Amended) ~~A~~ The device according to ~~as~~ claimed in claim 5, characterized in that said mean disc tilt ~~register~~ value is obtained based on the following equation:

$$r_{\beta} = \frac{G_c c_f \Delta r_f}{c_f (a_1 + a_2) \Delta R}$$

5 where  $\Delta r_f$  is the difference between two ~~mean averaged~~ focus ~~integrator control~~ values measured at initialization,  $\Delta R$  is a sledge step in radial direction between two measurements,  $G_c$  is the factor between actuator tilt and disc tilt for which comatic aberrations are optimal corrected,  $c_f$  is a spring constant acting  
10 against a focusing movement,  $c_t$  is a spring constant acting against a tilt movement,  $a_1$  is a distance of a first coil of said split coil arrangement with respect to a symmetry line, and  $a_2$  is a distance of a second coil of said split coil arrangement with respect to said symmetry line.

8. (Currently Amended) ~~A~~ The device according to ~~as~~ claimed in claim 1, wherein said device further comprising ~~comprises~~ a tilt table for storing an information indicating mean disc tilt values and corresponding radial positions.

9. (Previously Presented) An optical disc player comprising a tilt control device as claimed in claim 1.

10. (Currently Amended) A tilt control method for controlling a radial tilt of a recording surface of an optical disc ~~(1)~~ with respect to an optical recording/reproducing beam, said tilt control method comprising the steps of:

- 5 a) ~~\_\_\_\_\_~~ generating a focus controlling output and a tilt controlling output, ~~;~~ and
- b) ~~\_\_\_\_\_~~ controlling a focusing state of the optical recording/reproducing beam and the radial tilt based on said focus and tilt controlling ~~output~~ outputs,
- 10 characterized ~~by~~ in that said method further comprises the step of:
- e) ~~\_\_\_\_\_~~ determining ~~the~~ a radial tilt value based on a differentiation of focus control values obtained at different radii of said optical disk ~~(1)~~.

11. (Currently Amended) ~~A~~ The method according to ~~as claimed in~~ claim 10, characterized ~~by~~ in that said controlling said focusing state ~~by using~~ step comprises using a split coil arrangement arranged to provide a focus adjustment, ~~and~~

- 5 ~~supplying,~~ said focus and tilt controlling ~~output~~ outputs being supplied to respective coils of said split coil arrangement.

12. (Currently Amended) A The method according to as claimed in claim 10, characterized in that said focus controlling step comprises using a mean focus controlling output for tilt control.

13. (Cancelled).